Mendeley and Plagiarism Checker Applications in Scientific Writing

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Abstract—This study aims to describe students’ knowledge and experience about Mendeley and plagiarism checker applications. In addition, this study also aims to portray the use of both applications in scientific writing. The study involved 148 students from various universities in Indonesia in April and May 2018. The data were collected using Google form consisting of 10 questions. The collected data were analyzed descriptively. The result reveals that the students are not still get accustomed much and do not use frequently Mendeley and plagiarism checker applications.

Keywords—Mendeley; plagiarism checker; scientific; writing; Indonesia

I. INTRODUCTION

The development of technology is not only on meeting the needs of everyday life but also in the academic world, namely reference managers and applications similarity checks. One of the reference managers and similarity check applications that have been widely used is Mendeley and Plagiarism Checker X. As the name suggests, Mendeley serves to facilitate in preparing references or bibliography. The preparation of the bibliography is very important, especially in the scientific papers published in the journal. In fact, each journal is very likely to have a style of guidelines so that between one journal with another journal is very likely to use different forms of bibliography[1]. One of Mendeley’s functions is to assist the author in compiling the bibliography.

The aim of Plagiarism Checker is to check the similarity between one’s article with another article. This way needs to be conducted so that there is no plagiarisms or copying cases. Tracing activities can be analogous to stealing. A scientific paper should be a work of one’s own so that is not justified to have an exact statement with the writings of others. It is also based on the assumption that everyone must have his own writing style. Therefore, surely the writing is not the same as the writings of others. Prior to this application, academics still had difficulty detecting plagiarism. However, it has now become very easy to detect the similarities between one article with another author’s different articles.

In Indonesia, one of the most popular headlines published by national newspaper Tempo (February 18th, 2014), was plagiarism incident conducted by the prominent poet Chairil Anwar (1949) in his well-known poetry entitled Karawang-Bekasi. His poet was suspected as plagiarism act in which the content of the poet had considerably high similarity with Archibald MacLeish’s state of art entitled The Dead Young Soldiers[2]. Plagiarism case was also charged to the Rector of Jakarta State University in 2017[3]. Another plagiarism case performed by rector of University of Haba Oleo, Muhammad Zaman Finhu, was proven in 2018[4].

Chronic incidents of plagiarism in Indonesia occurred in academic setting particularly in higher education insist the government take crucial efforts to overcome this serious problem. In regard to this issue, the government through the Ministry National Education of Indonesia Republic stipulated the Act no 17, 2010. This act regulates a chapter concerning the steps or the ways to overcome the plagiarism cases conducted by university students and another chapter as anticipating efforts through the steps of supporting anti-plagiarism.

In China[5], Taiwan[6], and Indonesia[7][8][9][10] research regarding plagiarism were much conducted. In addition, the research related to reference manager Mendeley [11] was also conducted in Indonesia. However, research regarding the students’ knowledge and familiarity on plagiarism with its checker application and reference manager in scientific writing is still less explored in Indonesia.
Therefore, this research aims to reveal to what extent the students have been familiar with the plagiarism with its checker application and reference manager in their scientific writing.

II. METHOD

A. Procedure

This study employs Google form in term of multiple choice and check box (with more than one option). The questions are oriented to explore the students' understandings and their experiences on the utilization of plagiarism checker application and reference manager (Mendeley). This is conducted for one month since May to April 2018.

B. Participants

This study involved undergraduate students as respondents from different universities in Indonesia. There were 148 students in total who participated in this study.

C. Data Analysis

The data obtained from the respondents are descriptively analyzed employing to investigate general pictures about the students' understandings and experiences on the utilization of plagiarism checker application and reference manager (Mendeley). To reveal relationship between the respondents' understanding and their experiences on plagiarism checker application and reference manager, descriptive analysis is conducted.

III. RESULTS

This section presented the data obtained from the questionnaire regarding how the respondents explore their experiences on the utilization of the Mendeley and the plagiarism checkers application. The questionnaire explored the respondents on their recognitions on both applications, the sources they got the application, their activeness on using them, the respondents frequency level, the reasons, the benefits, and the challenges of the use of the applications.

A. Information about Mendeley Application

The data obtained from the questionnaire regarding the option whether or not the respondents are familiar with Mendeley reveals that they have considerable differences among them. The majority of the respondents about 86.5% declare that they have already known the application while the rest of them about 13.5% state that they have not been familiar with Mendeley application.

From the data concerning undergraduate students familiarity about Mendeley, it can be assumed that the application of Mendeley has been recognized well by large number of students since most of them are influenced by the advanced of the technology and information. In this digital age, the use of technology and information expose and ease people with the bulky of information. Meanwhile, the small number of the students who have not been familiar with Mendeley application might use other reference manager applications which is similar with Mendeley

B. The Source Information of Mendeley

The data regarding the first information about Mendeley application, the respondents claim that there are few sources such as from the internet, friends, lecturers and themselves, how they attain the information. In general, most of the respondents (85.8%) affirm that they recognize the information about Mendeley from their lecturers. In addition to that, friends and internet also provide the information about the Mendeley.

It is clearly shown that the role of lecturers contribute much in making students to gain the information about Mendeley. This suggests the lecturers recommend the students to attempt and apply the use of this application when they do class assignments both individual and group ones. This way will trigger the students to be familiar with reference manager use. Thus, the students acquire skills of making references and citation in their scientific writing.

C. The activeness on Using the Application

Although the majority of the respondents argue that they acknowledge the use of Mendeley, it does not assure their activeness in the application on their writings. Hence, exploring whether or not the respondents are active users. The data show that 80.4% respondents are classified as active user of Mendeley application while the rest of them which is less than 20% respondents are included as non-active users.

The data designate that the respondents' habit and attitude about the application. Ideally, the understanding on the Mendeley application will also be reflected on the use of it. However, the data confirm that there are still few students who are categorized as non-active users although they already know the application. Therefore, it is strongly recommended that the lecturers must offer great exposure on the use of the Mendeley in the practice.

D. The Frequency Level of Using Mendeley

The rate of frequency on using the Mendeley is also important item to explore in this research. The data reveals that there are four categories of respondents in term of frequency level on utilizing Mendeley application in their scientific writing. The first category is the group who applies the application constantly consisting of 10.1% respondents. The second category is the group who employs the application occasionally involving 42.6% respondents as the biggest portion of the categories. The third category is the group who ever make use the application consisting 19.6% respondents. The last category is the group who never use this application consisting 27.7% respondents.

- The data obviously illustrate that the four categories of the group indicate some dissimilarity of frequency level on making use the application in their scientific writing. This condition clarifies that in making some references and citation in doing class assignments students might not optimize to utilize the application.

E. The Motive of Utilizing Mendeley

The data from the questionnaire related to the motives of the respondents on the use of Mendeley application display
that there are three main reasons why they utilize this application. The first reason in which the biggest number of the respondents (62.2%) affirm is that they claim that the Mendeley application can facilitate them to make references more easily when completing class assignments both individually and collaboratively. The second motive stated by the respondents is related to the recommendation of their instructors. There are 32.4% respondents argued that they used this application because the respondents are recommended to use Mendeley by the lecturer or their institutions. The last reason why the respondents (27.7%) apply the Mendeley application is that this application can facilitate the respondents to fulfill their needs to locate relevant sources for their writing.

F. Benefits of Mendeley Application

Based on the data of questionnaire, it reveals that the majority of the respondents, which is about 59.2% of them, utilized Mendeley to make the references on their scientific writing. In addition, 37.4% of the students confirmed that Mendeley is also favorable for quoting and writing. It is also slightly different on the make use of Mendeley for writing and quoting, 35.4% of the students averred that Mendeley facilitate them to hunt a wide range of reference materials in writing. The ultimate benefits of Mendeley claimed by the students are for downloading documents (13.6% of the students), and sharing and working collaboratively with friends (4.8% of the students). In sum, the data indicate that the respondents have already understood and been familiar with the function of and the existence of Mendeley applications which can assist them in composing or writing scientific papers or academic writing.

One of main components in scientific/academic writing is a citation. In citing scholars’ theories, notions and statements, the writers are required to convey their courtesy both on the truth content and recognition of the writings of others. In this sense, the citation section determines if the students’ writings are detected a plagiarism or not. The writers’ awareness in employing Mendeley can be an evident pointer of understanding of citation in their writings. Although up to this time the respondents still tend to do copy paste on their works, Mendeley’s use elicit them to get accustomed to appreciating and respecting the others’ works.

In addition, Mendeley can assist the respondents in preparing the bibliography to be more consistent and concise. As the consequences, the respondents merely are required to occupy little time in arranging the bibliography by sorting alphabetically through. This concise effort can function well because it has been prepared automatically by Mendeley. Thus, Mendeley has simplified and facilitated the respondents for not to work twice by typing, organizing, and sorting the various reference sources cited.

The respondents, however, have not utilized optimally in making use of the benefits of Mendeley. This signal can be seen obviously from the respondents’ response which show merely 4.8% of respondents who utilized Mendeley to share and work together for their scientific writing. One Mendeley account can save and possess a large collection of readings. This wide range of collection can also be required by other respondents with the similar interest or fields particularly those who would write almost the same topics. Thus, actually, the use of various readings on Mendeley can be used together, despite having a different account. Unfortunately the respondents do not really understand this section.

G. Information about Plagiarism Checkers Application

Honesty is one of important things that must be taken into consideration in conducting a research. One way to crosscheck whether or not one’s work has the similarity of a writing with other is plagiarism checker. The data obtained from the questionnaires indicate that 78.2% of respondents have ever been provided material about plagiarism checker while 21.8% of them claimed that they have never experienced it.

These data obviously pointed out that the majority of the respondents already recognize how to crosscheck their works or texts against over thousands or even billions of web pages detecting plagiarized texts or passages that have been previously existed and published elsewhere. This result, of course, conveys a positive impact for the respondents in term of alertness of checking the similarity of their works before publishing them. Therefore, after the respondents are quite familiar with this application, they are expected not to copy-paste again as doing their works. In addition, if the respondents have to do a direct quotation, they already enable to identify the rules and make them aware and more careful in quoting the opinions of others.

Comprehensive information of this application can encourage the respondents to be skillful in writing and selecting appropriate words/dictions and challenge them to possess a lot of repertoire vocabularies and terminologies. The results of the plagiarism checker application also will display the identical sentence with another sentence which is marked as a block. To diminish the level of similarity, the respondents can improve the blocked parts by changing or paraphrasing them. These both of these activities can be prepared if students have bulky words or dictions. Therefore, lecturers are also recommended to facilitate the respondents in making the advancement of information technology in this digital age.

H. Time of utilizing plagiarism checker application

Regarding the application of plagiarism checker on the respondents’ scientific writing, 65.3% of the respondent have tried plagiarism checker application while 34.7% of respondents did not use. The data advocates that although the respondents already recognize plagiarism checker application, it does not guarantee that they apply the application in their writings. Ideally, those who have already recognized the application they also should start apply this for prevention of the similarity of their writings with others. To prevent plagiarism several institutions and Open Journal System (OJS) managers have issued rules and directions related to the uniqueness and originality of writing obtained through this plagiarism checker. The limitation of plagiarism varies considerably. However, maximum standards are allowed between 20%–30% detected similarities with other works.

As the consequences, lecturers are also recommended to initiate this application at least for checking the various tasks or assignments of students and it is expected to provide
student motivation to avoid plagiarism in their scientific writing. There are many things that can be gained from this habituation, for instances: 1) students get accustomed to using their own sentences, 2) students are aware of appreciating the work of others, and 3) students are rehearsed to get accustomed to always be honest.

I. Kinds of Plagiarism the Respondents Did

The data expose that 51% of respondents admitted that they do plagiarism derived from journals or scientific articles with different intentions such as creating individual papers about 47.6% respondents, 27.9% of them perform plagiarism for doing group work, 8.2% and 7.5% respondents on power point when presentation and in a book report.

Based on these data, it can be perceived that students deliberately conduct citation through direct quotation. The way of direct quotation is the form of citation by rewriting other people’s opinions without any changes. This improper action should be changed by making the students familiarized with paraphrasing. Paraphrasing is a way of quoting the opinions of others that have been transformed by using the students’ own language. In making good paraphrasing the students are necessary to have skills of organizing words. This ability will be much better if the students own a lot of vocabulary which can be obtained through a lot of readings.

Nevertheless, the data indicate that the students already get the positive values and apprehend the proper reference sources used such as scientific journals. As a result, this progressive effort can eliminate the students’ habits of quoting from blogs or posts which cannot be accounted for the references materials for their writings.

J. Reasons for Not Using the Plagiarism Checkers

Regarding some reasons of the respondents for not using a plagiarism checker are exposed clearly in this section. The data show that the students do not use plagiarism checker applications because 32% of respondents believe that their writing is genuine. In addition, 30.6% of them claimed that the use of plagiarism checker takes a relatively long time particularly if it is carried out online. 29.9% of the respondents assume that the use of the application should be charged and it is relatively expensive. Meanwhile, other reasons why the respondent do not occupy the application is that 23.8% of them state applications are difficult to use or they are not familiar with the applications.

Based on the data, it can be perceived that the students are conscious that they have done the suitable citation. The students also have followed the rules in writing the citation and they are so certain that the students will have a high degree of uniqueness through making paraphrases.

The reason why the students do not use plagiarism checker since it requires much time to conduct. This shows that students do not have much time to check. Although in fact, the process of plagiarism checking does not require a long time when it is supported by suitable internet connection. Thus, if the internet connection is good, then the sooner the results of plagiarism arise. This reason indicates that students do not have a stable internet connections so it takes a long time to check.

Although the respondents already get familiar with the information of plagiarism checker, in fact they still experience difficulties and problems when applying the application. In this sense, it indicates that the students do not have sufficient skills in utilizing information technology. As the result, they tend to prefer having practical things to troublesome ones. On the other hands, the students actually feel a little burden if his writing has a high degree of uniqueness. This situation frequently leads students to change or improve their writings in which this fact causes the student to work twice and takes time. Therefore, students assume that the use of this application is considered troublesome and difficult.

IV. CONCLUSION

Based on the above analysis it can be concluded that students are still not accustomed to using Mendeley and plagiarism check applications. Although both applications are very helpful in making a scientific paper, students do not explore much the applications and are not familiarized to use them well. Therefore, it is strongly recommended for students to be able to use both applications to facilitate them in scientific writing. In this sense, the lecturer serve an vital role in facilitating students to get familiar with the applications. However, students should be more creative to learn the applications for themselves.

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REFERENCES


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